

Materiali Fibre	Densità [kg/m <sup>3</sup> ]	Resistenza [MPa]	Rigidezza [GPa]	Resistenza specifica [MPa/kg*m <sup>3</sup> ]	Rigidezza specifica [MPa/kg*m <sup>3</sup> ]
Vetro E	2540	3000	74	1.18	28.5
Vetro S	2480	4600	86	1.85	35.5
Grafite HM	1900	1700-2100	390-520	0.9-1.1	200-280
Grafite HS	1780	3500	228	1.96	128
Kevlar 29	1440	2700	62	1.88	43
Kevlar 49	1440	3600	124	2.5	86
Acciaio	7860	340-2100	210	0.043-0.27	26.9
Leghe alluminio	2700	140-620	70	0.052-0.23	25.9

Materiali Matrici	Densità [kg/m <sup>3</sup> ]	Resistenza [MPa]	Rigidezza [GPa]	Allungamento a rottura [%]	Max temperatura di esercizio [°C]
Poliestere	1200	50-75	4	3	<100
Epossidica	1200	88	5	1.5	100-200

	E <sub>1</sub> [GPa]	E <sub>2</sub> [GPa]	G <sub>12</sub> [GPa]	ν <sub>12</sub>	Φ
T300/934	131	10.3	6.9	0.22	0.65
AS/3501	138	9.0	6.9	0.3	0.65
Kevlar 49/934	75.8	5.5	2.3	0.34	0.65
Scotchply 1002	38.6	8.27	4.14	0.26	0.45
Boron/5505	204	18.5	5.59	0.23	0.5

	s <sub>L</sub> <sup>+</sup> [MPa]	s <sub>L</sub> <sup>-</sup> [MPa]	s <sub>T</sub> <sup>+</sup> [MPa]	s <sub>T</sub> <sup>-</sup> [MPa]	s <sub>LT</sub> [MPa]
T300/934	1448	1448	44.8	248	62.1
AS/3501	1448	1172	48.3	248	62.1
Kevlar 49/934	1379	276	27.6	64.8	60.0
Scotchply 1002	1103	621	27.6	138	82.7
Boron/5505	1586	2482	62.7	241	82.7



